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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/031,687	06/21/2002	Galen M. Gareis	6500-1805.3	8690

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EXAMINER

NGUYEN, CHAU N

ART UNIT	PAPER NUMBER
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2831

DATE MAILED: 09/03/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Applicati n N .

10/031,687

Applicant(s)

GAREIS, GALEN M.

Examiner

Chau N Nguyen

Art Unit

2831

-- Th MAILING DATE of this communicati n appears n the c ver she t with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 July 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) _____ is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

Claim 1 is objected to because of the following informalities: in claim 1, line 13, before "with" delete "--twisted pair data cable--". Appropriate correction is required.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stine et al. (4,096,346) in view of Baker et al. (5,434,354).

Stine et al. discloses a shielded pair cable comprising an insulated pair cable (Fig. 5), a shielding tape being a composite tape, the shielding tape having a metal thickness of 0.33 to 2.00 mils (col. 3, lines 1-2), the shielding tape being wrapped around the pair at a tension that eliminates a substantial amount of the air and leaves a cross-sectional void area of less than 25% of the cross-sectional area of

the shielded cable. Stine et al. does not specifically disclose the insulated conductors of the pair cable being twisted, nor the shield being helically wrapped with an overlap (re claims 1,10&11). Baker et al. discloses a cable comprising insulated conductors which are twisted into twisted pairs, and a shielding tape (105) which is helically wrapped with an overlap around the twisted pairs. It would have been obvious to one skilled in the art to twist the insulated conductors of Stine et al. as taught by Baker et al. to reduce the cross-talk among the pair. It would also have been obvious to one skilled in the art to modify the shielding tape of Stine et al. by helically wrapping the tape with an overlap around the twisted pair as taught by Baker et al. to improve the shielding effect in the cable.

The modified cable of Stine et al. also discloses the cross-sectional void area less than 18% (re claim 3) and the shielding tape having a metal thickness of 0.75 to 1.25 mils, the shielding tape having a width of 0.5 to 1.5 inches and helically wrapped with the overlap of 25% at an angle of 30-45 degrees (see Baker et al.) (re claims 4, 5, 7, 14), at least four of the helical shielded twisted pair cables, a jacket surrounding the at least four twisted pair cables (see Stine et al.) (re claims 6,12, 15&16). Re claims 8 and 14, it would have been obvious to one skilled in the art to wrap the modified shielding tape of Stine et al. with an overlap of 45% to secure the turns together since it has been held that discovering the optimum or workable

range involves only routine skill in the art. In re Aller 105 USPQ 233. Re claim 9, Stine et al. discloses the cable being bundled prior to being jacketed.

Re claims 1, 2, 6, 10, 11, and 17, the characteristics and the properties recited in these claims are inherent from the modified cable of Stine et al. since it comprises structure and material as claimed. Regarding the standard impedance deviation, it would have been obvious to one skilled in the art to choose suitable standard impedance deviation for the modified cable of Stine et al. to meet the specific use of the resulting cable since it has been held that discovering the optimum or workable range involves only routine skill in the art. In re Aller 105 USPQ 233.

Response to Arguments

3. Applicant's arguments filed July 9th 2003 have been fully considered but they are not persuasive.

In the applicant's remarks, there are listed several features which, according to the applicant, are not disclosed or suggest by Stine et al. and Baker et al.

However, applicant does not provide evidences to support for this argument.

Examiner, on the other hand, asserts that the combination of Stine et al. and Baker

et al. discloses the claimed invention including the properties and characteristics which are inherent from the modified cable of Stine et al.

4. Applicant does argues that the thickness of the entire shielding tape (the metal layer and the Mylar layer) of Stine et al. is about 0.85 mils which is substantially less than applicant's upper limit of 2.0 mils for the metal alone. In response to this argument, it can be seen that the entire shielding tape of Stine et al. is about 0.85 mils, therefore for the metal alone, it should be in the claimed range of 0.33 to 2.00 mils. Regarding the Baker et al. reference, applicant argues that Baker et al. discloses the shielding being helically wrapped around a bundle (plurality) of twisted pair. Baker et al. is silent about the thickness of the metal layer. Baker et al. is not concerned with a tightly wrapping shield. Baker et al. discloses the lower limit of 25% but does not relate this to a single shield and at applicant's tension. These arguments are not found persuasive. Baker et al. is used to support the position of helically wrapping a shielding tape with the overlap of 25% and at an angle of 30-34 degrees to improve the shielding effect in the cable. Therefore, Baker et al. does not have to disclose the thickness of the metal layer, the shield being tightly wrapped, nor the wrapping tension. These are disclosed by Stine et al. In response to applicant's argument that by utilizing a shield with a particular spatial arrangement, it provides a cable having significant

advantages over previously shielded pairs, and the prior art fails to recognize that the shield can also control electrical along the twisted pair such as capacitance, impedance and attenuation, the fact that applicant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985).

Summary

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Communication

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chau N Nguyen whose telephone number is 308-0693. The examiner can normally be reached on Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dean Reichard can be reached on (703) 308 3682. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.



Chau N Nguyen
Primary Examiner
Art Unit 2831